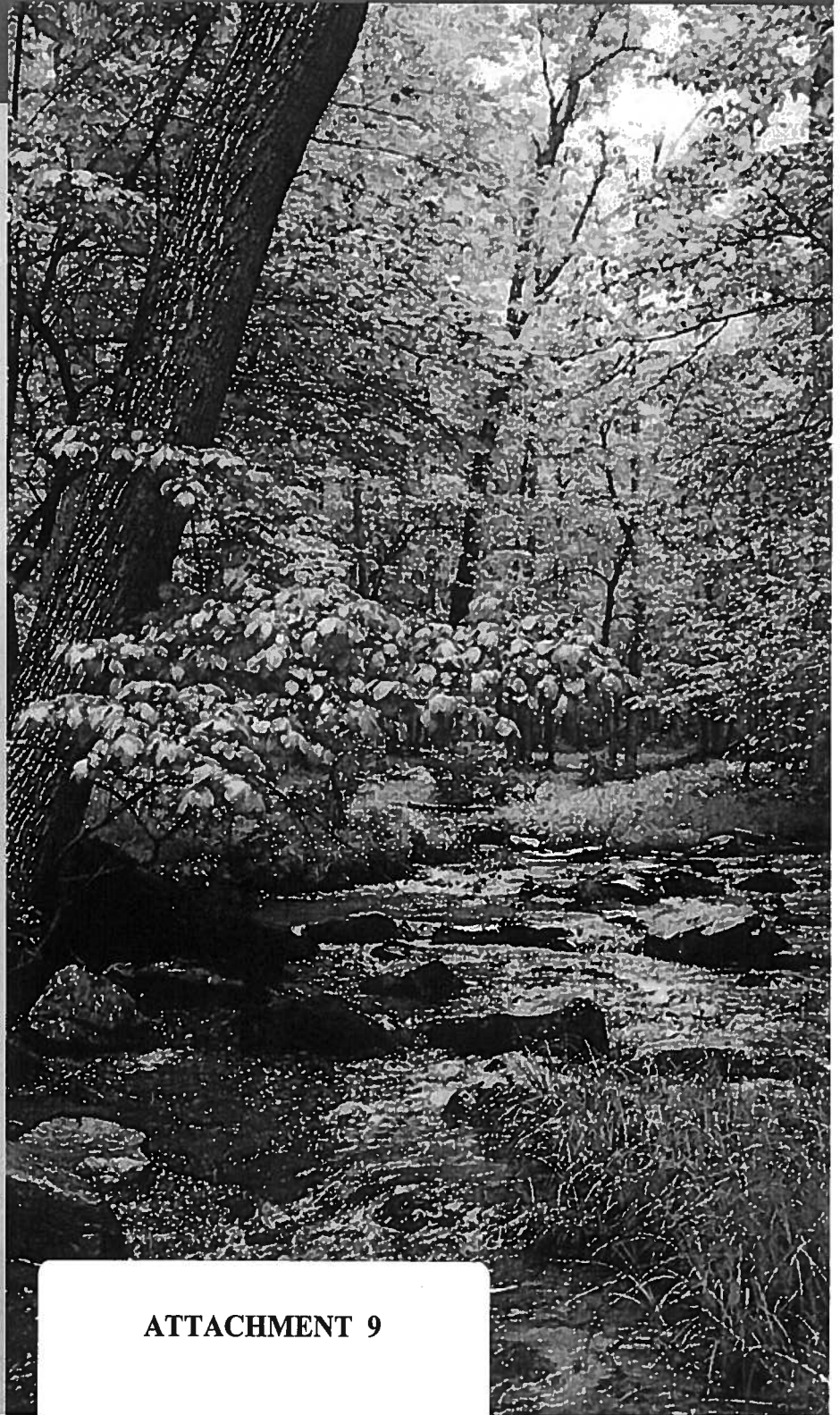




# Riparian Forest Buffers Linking Land and Water

*The conservation and restoration  
of streamside forests in the  
Chesapeake Bay watershed*



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ATTACHMENT 9



## About the Chesapeake Bay Program

The Chesapeake Bay Program is a unique regional partnership that has been leading and directing the restoration of the Chesapeake Bay since 1983.

The Chesapeake Bay Program partners include the states of Maryland, Pennsylvania, and Virginia; the District of Columbia; the Chesapeake Bay Commission, a tri-state legislative body; the U.S. Environmental Protection Agency (EPA), representing the federal government; and participating citizen advisory groups.

Since its inception, the Chesapeake Bay Program's highest priority has been the restoration of the Bay's living resources—its finfish, shellfish, other aquatic life, Bay grasses, and wildlife. Although much progress has been achieved, restoration goals are continually challenged by the needs of a growing human population. Because of this, the work of the Chesapeake Bay Program includes a growing emphasis on beneficial land use, such as riparian forest buffers.



Publication prepared by the Alliance for the Chesapeake Bay.  
Cover photo by Heather Richards, Potomac Conservancy.

July 2004

# Riparian Forest Buffers Linking Land and Water

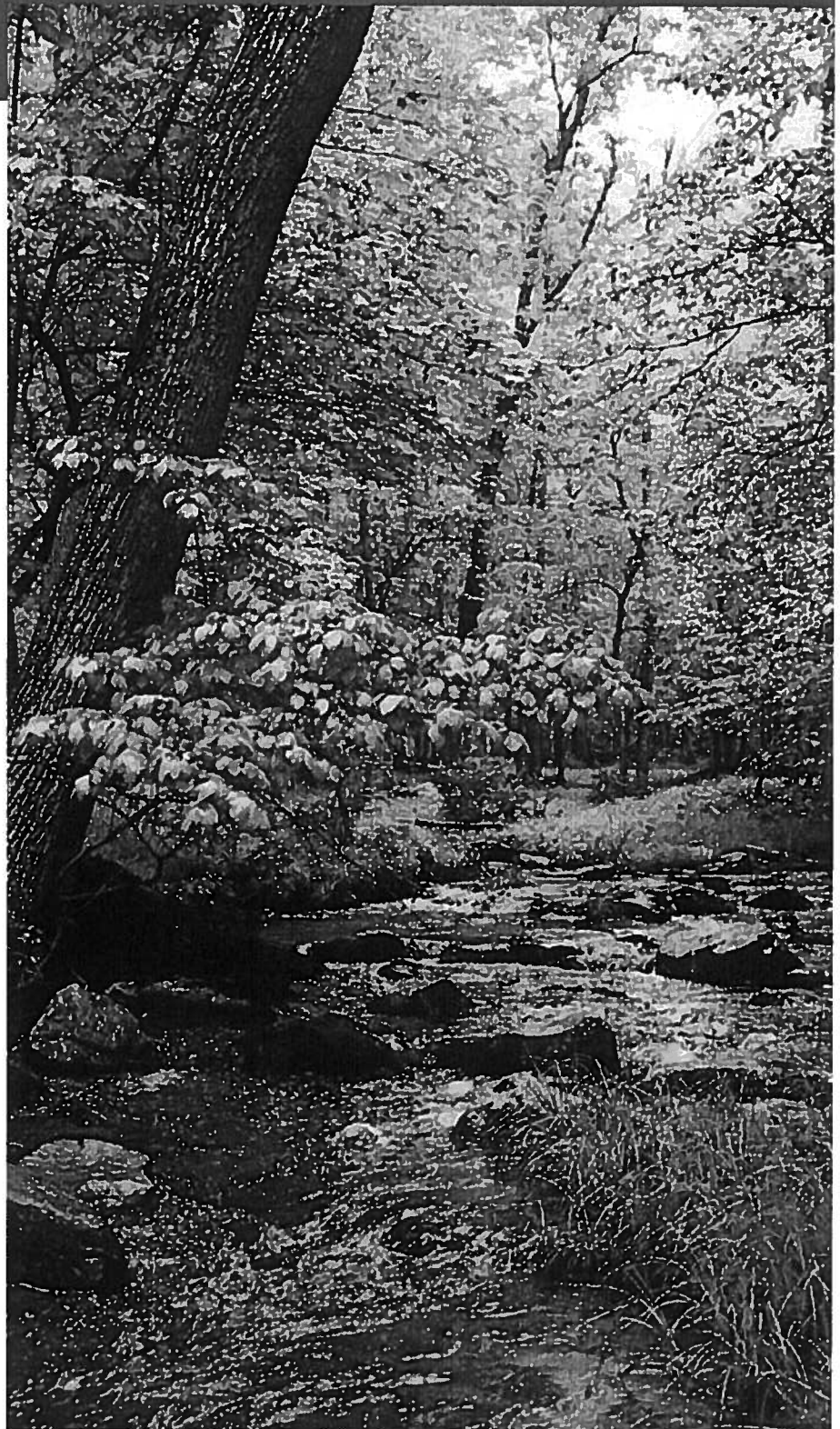
*The conservation and restoration  
of streamside forests in the  
Chesapeake Bay watershed*

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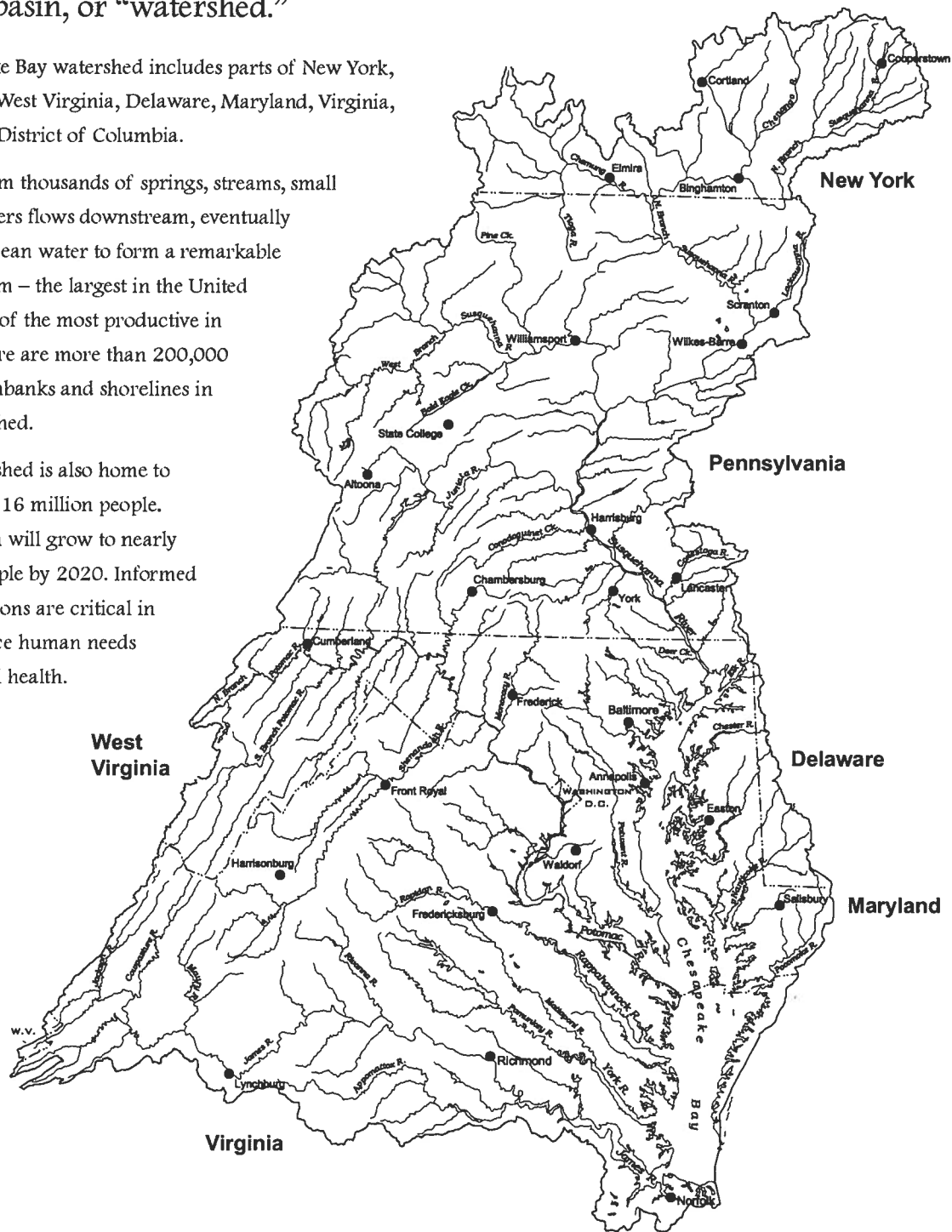
# The Chesapeake Bay Watershed

The Chesapeake Bay receives its water from a 64,000 square-mile drainage basin, or “watershed.”

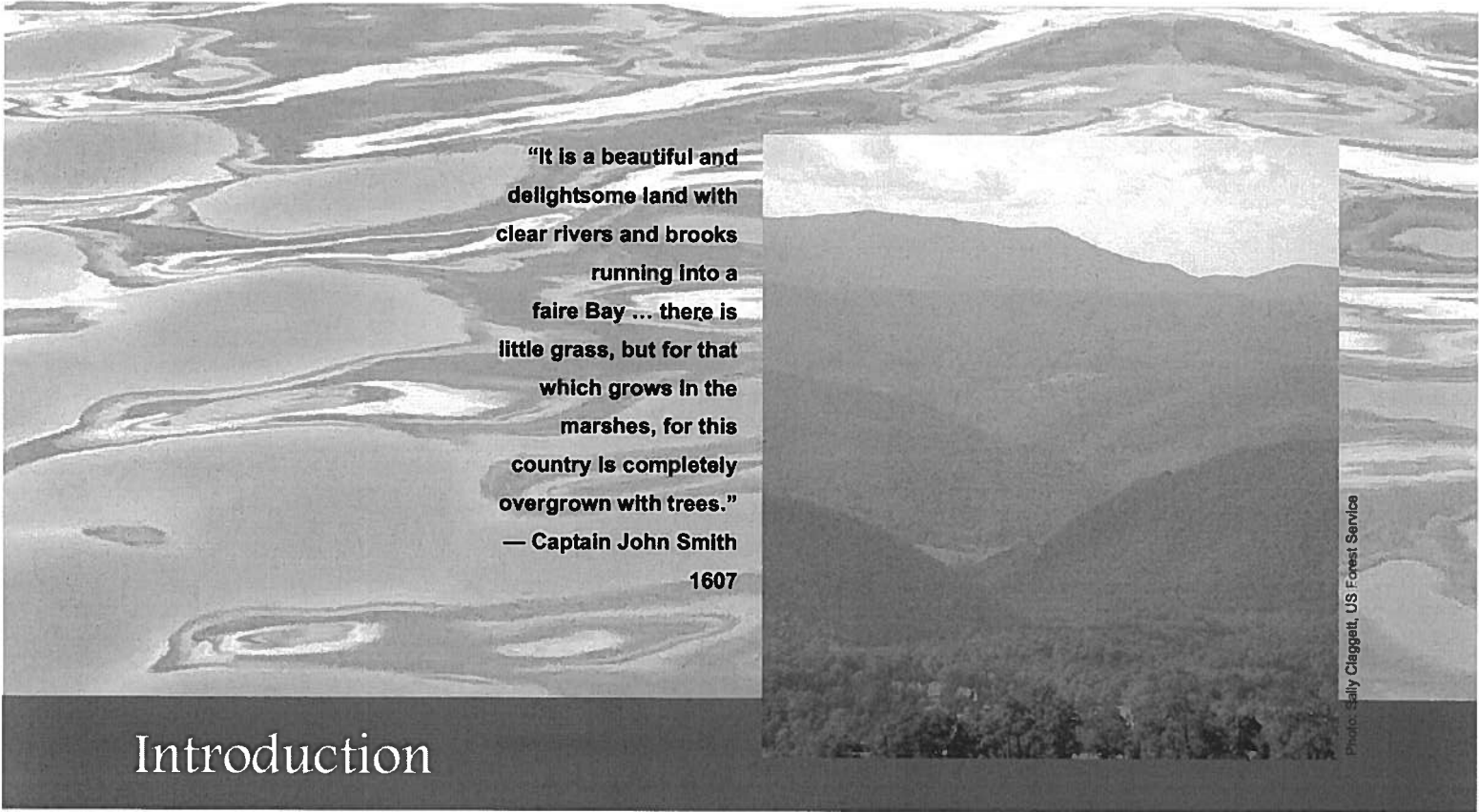
The Chesapeake Bay watershed includes parts of New York, Pennsylvania, West Virginia, Delaware, Maryland, Virginia, and the entire District of Columbia.

Freshwater from thousands of springs, streams, small creeks, and rivers flows downstream, eventually mixing with ocean water to form a remarkable estuarine system – the largest in the United States and one of the most productive in the world. There are more than 200,000 miles of streambanks and shorelines in the Bay watershed.

The Bay watershed is also home to approximately 16 million people. The population will grow to nearly 18 million people by 2020. Informed land-use decisions are critical in order to balance human needs with ecological health.



Everyone in the Chesapeake Bay watershed lives just a few minutes from one of the many streams and rivers that drain into the Bay.



"It is a beautiful and  
delightful land with  
clear rivers and brooks  
running into a  
faire Bay ... there is  
little grass, but for that  
which grows in the  
marshes, for this  
country is completely  
overgrown with trees."  
— Captain John Smith  
1607

## Introduction

**F**OUR CENTURIES AGO, Europeans arrived on the shores of the Chesapeake Bay to find a vast forest covering the land. This forest was an important regulator of the Bay's environment—a "living filter." The forest was dense, varied, and filled with wildlife. Trees lined nearly every stream and shoreline from the northern boundary, which would become New York State, to the southern edge, in present-day Virginia. This landscape was destined for dramatic change.

In the centuries following European arrival, agriculture expanded. Towns and cities flourished. The many demands of a growing population strained the Bay's resources and depleted its forests. Today, less than 60 percent of the watershed is forested, and much of the remaining forest is highly fragmented. Meanwhile, the population continues to grow, putting additional development pressure on forestlands.

The decline in forest coverage is related to the decline of water quality in the Bay itself. The most critical connection between the two can be found in "riparian areas"—land that stands at the water's edge.

Riparian lands provide a wealth of ecological benefits. For example, trees along the shoreline help to filter pollutants and sediment from runoff and groundwater before they enter the waterways. Trees also provide important habitat benefits for aquatic creatures. Fallen leaves and branches offer food and

**riparian area** • the land adjacent to a body of water, such as a stream, river, marsh or shoreline; forms the transition between the aquatic and terrestrial environments

shelter, while shade helps to regulate water temperature and keep oxygen in the water.

When riparian forests help to protect the streams and rivers in the Bay watershed, these benefits are realized downstream in the Chesapeake Bay. With more than 200,000 miles of streambanks and shoreline in the Bay watershed, riparian forests are vital for the success of the Bay restoration effort. Without them, the Bay and its rivers are increasingly susceptible to decline.

Since 1996, the Chesapeake Bay Program has been actively pursuing the restoration and protection of riparian forests in the Bay watershed. Working across state boundaries, this effort has set and achieved numerous restoration goals and developed innovative programs providing landowner incentives, outreach, education and training, and community partnerships. Maintaining this progress is critical. Today, the Chesapeake Bay Program is working toward an expanded set of goals that will further strengthen the quantity and quality of forest buffers and help protect Bay resources for future generations.

Photo: Sally Cagggett, US Forest Service

# Functions & Benefits of Riparian Forest Buffers

**I**N RECENT YEARS, scientists in the Chesapeake Bay region and elsewhere have documented how riparian forest buffers can help to restore the Bay. Their research also provides a broader understanding of the features that make a forest buffer most effective.

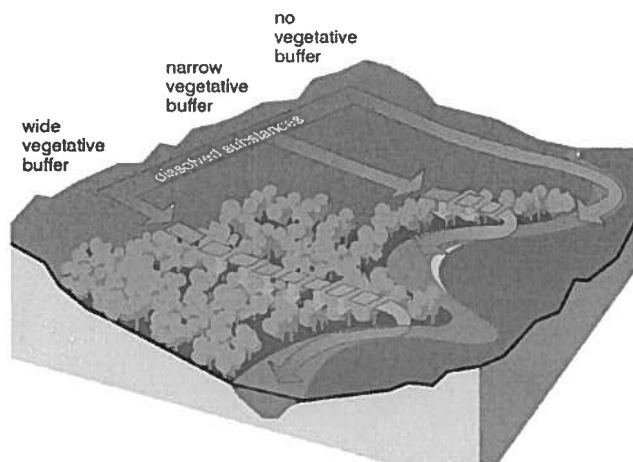
Riparian forest buffers offer enormous benefits to life on the land and in the water. These streamside systems:

- Filter pollution
- Sustain aquatic habitat
- Stabilize floodplains
- Transform and store nutrients
- Provide shade
- Provide wildlife habitat

There are few restoration initiatives that address both water quality and habitat needs so directly.

## Filter Pollution

Riparian forest buffers capture and filter rain water and sediment that wash off the land. The roughness of the vegetation and the forest floor slows runoff and allows it to infiltrate into the soil, filtering sediment from the water before it reaches local



Riparian forest buffers filter out pollutants before they reach the stream. The wider the buffer, the more effectively it reduces pollution.



Photo: Mike Land, National Park Service

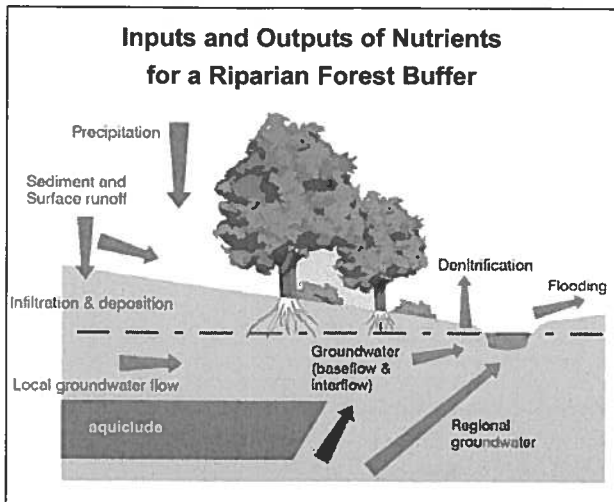
streams and rivers. Serving as a last “line of defense,” buffers remove pollutants such as nitrogen in the water and phosphorus bound to soil particles.

In fact, riparian forests can reduce nutrient and sediment inputs to a water body by 30 to 90 percent. The capacity of forests to absorb and store runoff can be 10 to 15 times higher than grass and four times higher than a plowed field. The wider the buffer, the more effectively it reduces pollution.

## Transform & Store Nutrients

Fertilizers and other pollutants travel to a stream through surface and ground water. Riparian forests act like pumps—taking up water and nutrients through their root system, storing them in the biomass of the tree, and releasing moisture into the air.

Streamside forests are also very effective in capturing and transforming nitrogen and other pollutants into less harmful forms, mostly due to the high level of chemical and biological activity in the wet, organic, carbon-rich soil. Through a process called “denitrification,” soil bacteria convert nitrate to a harmless nitrogen gas which is released into the atmosphere instead of polluting local streams.



Riparian forest buffers filter, transform, and store nutrients, while stabilizing floodplains.

## Stabilize Floodplains

Healthy, wooded riparian vegetation helps stabilize streambanks and reduce erosion. The root system holds soil together, while both the stems and roots help protect banks by deflecting and reducing streamflow velocity during floods. Floodplain forests can lessen effects of flooding downstream.

## Provide Shade

Riparian forests benefit fish and other organisms by improving the quality of nearby waters through shading. In summer, the leaf canopy helps maintain cooler, more even temperatures, especially on small streams. Cooler water reduces stress on fish and other creatures and holds more oxygen, encouraging the

growth of diatoms, beneficial algae, and aquatic insects. A few degrees can have a major effect on water quality and the survival of aquatic organisms.

## Sustain Aquatic Habitat

Leaves fall into buffered streams and are trapped by woody debris and rocks. They provide food and habitat for insects, amphibians, crustaceans, and small fish which in turn form the food chain for fresh water streams.

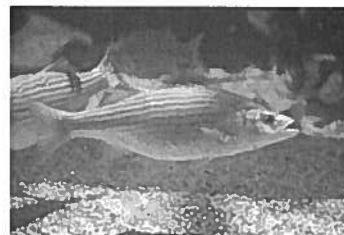


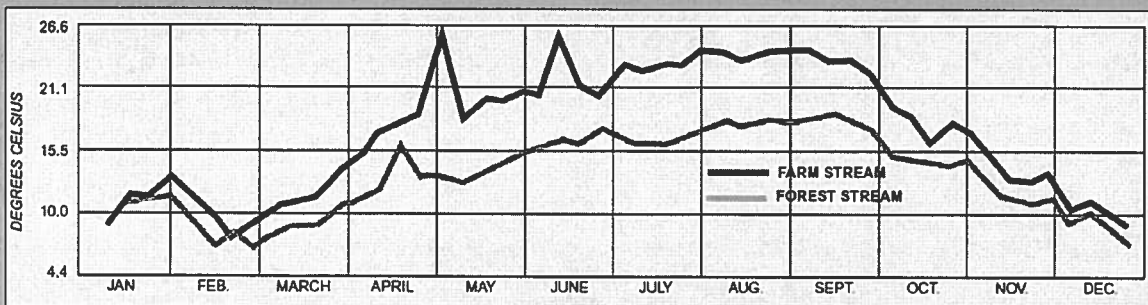
Photo: Chesapeake Bay Program

Leaf detritus supplies up to 75 percent of the organic food base in shaded streams. Woody debris also creates habitat structure and cover for fish and their food supply. When trees are removed from a stream, a wide range of species that depend on them are lost as well. Fish do "grow on trees."

## Provide Wildlife Habitat

More than half of all species on earth rely on the interwoven layers of habitat provided in riparian areas and the availability of food, water, and diversity of shelter all within a small area. The zone of transition from streamside to upland is home to a multitude of important plant and animal species. In addition to permanent habitat, continuous stretches of riparian forest also serve as valuable corridors for migrating wildlife. These multiple benefits are especially enhanced when the forest is composed of native trees with a diversity of age and species.

**Weekly Maximum Temperature for Farm and Forest Streams**

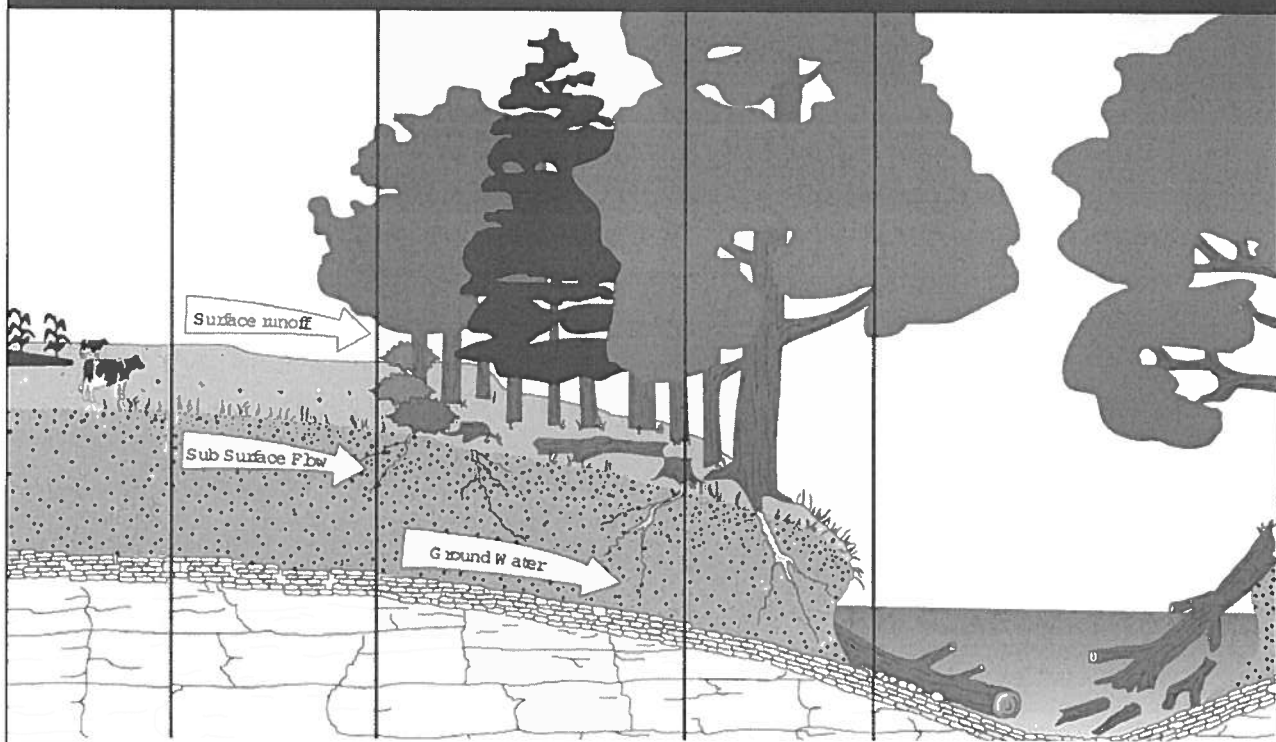


Shade provided by riparian forest buffers reduces stream temperatures and enhances aquatic habitat.



# The Three-Zone Riparian Forest Buffer

The three-zone buffer system is a model riparian system designed to achieve better water quality and protect the stream, along with other landowner objectives. A three-zone riparian forest buffer may not be necessary or achievable in every setting, but it provides a useful way to understand the functions and management of a forest buffer system. Riparian buffers will vary in character, size, and effectiveness based on the environmental setting, management, and landowner objectives.



Cropland/ Pastureland/ Developed Areas	Zone 3 GRASS	Zone 2 MANAGED FOREST	Zone 1 UNDISTURBED FOREST	Streambottom/Channel
<ul style="list-style-type: none"> <li>For cropland: sediment, fertilizer, and pesticides are carefully managed.</li> <li>For pastures: fencing, crossings, designed watering facilities, and proper grazing are practiced.</li> <li>For developed areas: sediment control and stormwater management practices are used.</li> </ul>	<p><i>Supports Zones 1 &amp; 2</i></p> <p><b>Functions:</b></p> <ul style="list-style-type: none"> <li>Controls runoff</li> <li>Disperses flow</li> <li>Traps sediments</li> <li>Filters suspended solids</li> <li>Uses/transforms nutrient runoff</li> </ul> <p><b>Management:</b></p> <ul style="list-style-type: none"> <li>Periodic harvesting may be conducted to control vegetative regrowth and redistribution of sediment build-up</li> </ul>	<p><i>Critical to Nutrient Removal</i></p> <p><b>Functions:</b></p> <ul style="list-style-type: none"> <li>Removes sediment and nutrients from runoff and subsurface flows through a number of natural processes including filtration, deposition, plant uptake, and denitrification</li> </ul> <p><b>Management:</b></p> <ul style="list-style-type: none"> <li>Periodic harvesting is acceptable to remove nutrients sequestered in tree stems and branches and to maintain nutrient uptake through vigorous tree growth</li> </ul>	<p><i>Critical to Habitat</i></p> <p><b>Functions:</b></p> <ul style="list-style-type: none"> <li>Provides leaf and wood debris to the stream</li> <li>Helps maintain lower water temperature</li> <li>Stabilizes streambank</li> </ul> <p><b>Management:</b></p> <ul style="list-style-type: none"> <li>Tree removal generally permitted only for streambank stability</li> </ul>	<ul style="list-style-type: none"> <li>Woody debris provides fish habitat and channel structure.</li> <li>The biological community in healthy forested streams processes nutrients and other chemicals within the channel itself, reducing pollution from upstream.</li> <li>Forested streams are generally wider than meadow streams, providing more active surface area for aquatic life to flourish.</li> </ul>

# Maximizing the Benefits of a Forest Buffer

**L**INKING LAND AND WATER, riparian areas serve as a “circulatory system” for the Chesapeake Bay watershed. As the natural riparian vegetation in the Bay region, forests provide a number of benefits to streams in any location. The more forest cover that exists in a watershed, the more effective riparian forests can be. However, the magnitude of benefits delivered by a riparian forest buffer depends on site-specific factors. The location, width, and continuity of buffers set the overall context for effectiveness.

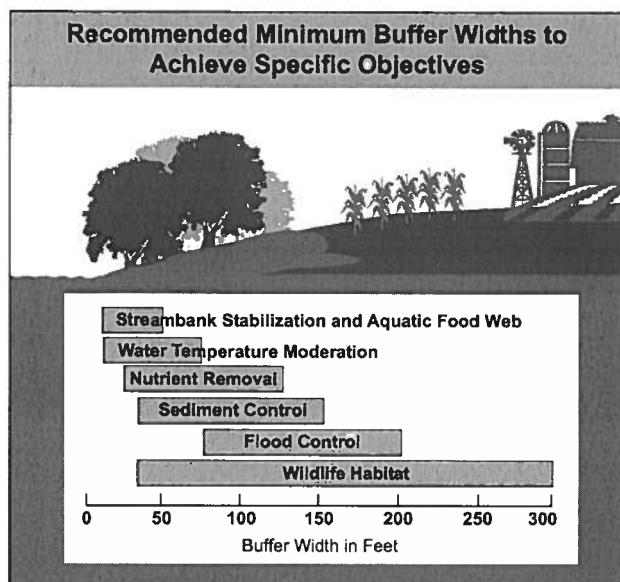
## Location of the Buffer

Riparian forest buffers that are planted with clear outcomes in mind are often the most effective because the buffer width and planting plan can be designed in ways that best achieve those objectives. The following benefits are usually considered in the process of selecting a targeted buffer location:

- **Reducing nitrogen.** Nitrogen is one of the most damaging pollutants in the Bay. Restoring riparian forest buffers in areas of high nitrogen runoff can greatly reduce the quantity of nitrogen that travels through the buffer and enters streams and tidal waters.
- **Protecting headwater streams.** Headwater streams are the smaller waterways that feed other streams and rivers. Restoring forest buffers to the headwaters will send cleaner, cooler water downstream.
- **Improving aquatic habitat.** Restoring riparian forest buffers can launch or complement existing efforts involving fish passage, stream health, and other living resource objectives.
- **Creating forest corridors.** Larger, continuous forest buffers provide connected habitat for terrestrial and aquatic wildlife. They also enhance the ability of species to migrate and to sustain their overall population. Sometimes restoring continuity may be as important as expanding width.

## Width of the Buffer

The ideal width for a riparian forest, and the factors that bring it to full maturity, vary. In general, wider buffers bring a greater variety of benefits and



are more likely to sustain those benefits over time. The Chesapeake Bay Program recommends minimum widths of 75 to 150 feet wherever possible, in order to achieve the widest range of water quality and habitat objectives. Some site-specific factors that influence ideal buffer width include:

- **Physical characteristics of the site.** These could include soil, slope, stream order, or stream stability. For example, a wider buffer might be needed to offset faster runoff from a steep slope.
- **The value of the stream being protected.** For example, does the stream provide drinking water or a high-quality trout fishery?
- **Intensity of the neighboring land use.** Agricultural land that requires a high level of fertilizer or pesticides may need a wider buffer than land with less polluted runoff, such as a pasture or low-density residential area.
- **Landowners' objectives.** Establishing a suitable buffer width must balance restoration objectives with the needs and interests of the landowner.
- **Limitations of an urban site.** Existing development often limits the width of riparian areas available for restoration in urban areas. In addition, stormwater practices may cause runoff to bypass the buffer. Buffer design should be integrated with stormwater management practices to optimize benefits.

# The Chesapeake Bay Riparian Forest Initiative

**T**HROUGHOUT THE CHESAPEAKE BAY watershed, work has been underway to protect and restore riparian forest buffers. The Chesapeake Bay Program launched this initiative in 1994 and celebrated its success in 2003 by advancing a new, expanded set of goals for riparian forest buffers.

When the initiative began in 1996, the Chesapeake Bay Program set out to restore 2,010 miles of forest buffers in the Bay watershed by the year 2010. Facing a formidable challenge at the time, partners in the program responded with vigor. Maryland, Pennsylvania, Virginia, the District of Columbia, and the federal government each pursued this goal by forming partnerships with landowners, local governments, and community organizations, and by building new programs to address the need. Their combined efforts led to resounding success—the goal for 2,010 miles of forest buffers was met and exceeded eight years ahead of schedule, spurred by new incentives for landowners to plant forest buffers.



Photo: Al Todd, US Forest Service

The Chesapeake Bay Program is working to restore 10,000 miles of riparian forest buffers by 2010.

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*The Chesapeake Bay Program is widely recognized as a national leader in restoring and protecting riparian forest buffers.*

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In December 2003, the Chesapeake Executive Council built on this success by issuing a directive for *Expanded Riparian Forest Buffer Goals* (Directive No. 03-01). This new directive defines a long-term vision for forest buffers in the Bay watershed, while also setting several short-term goals and recommending policy changes. The new goals include the following:

- Restore at least 10,000 miles of riparian forest buffers by 2010.
- Ensure that at least 70 percent of streambanks and shorelines are buffered in the long term.
- Advance efforts to conserve existing forest buffers.
- Work with at least five jurisdictions per state to promote urban forests and increase tree canopy.

## Raising the Bar

**T**HE 2003 DIRECTIVE RAISES the riparian forest restoration goal from 2,010 to 10,000 miles by 2010. This five-fold increase represents a commitment to plant nearly 900 miles of streambanks and shorelines in each of the next seven years.

At present, approximately 60 percent of the Bay's riparian areas are forested. To reach a long-term goal of 70-percent coverage in the entire watershed, the Chesapeake Bay Program and its partners will need to restore at least 30,000 miles of riparian buffers and conserve all riparian areas that are currently forested.

**1994**

Chesapeake Executive Council calls for the first riparian forest buffer policy for the Bay watershed.

**1996**

First goal set: 2,010 miles of forest buffers to be restored by 2010.

**2002**

2010 goal met eight years early.

**2003**

Chesapeake Executive Council sets new goal: 10,000 miles to be restored by 2010.

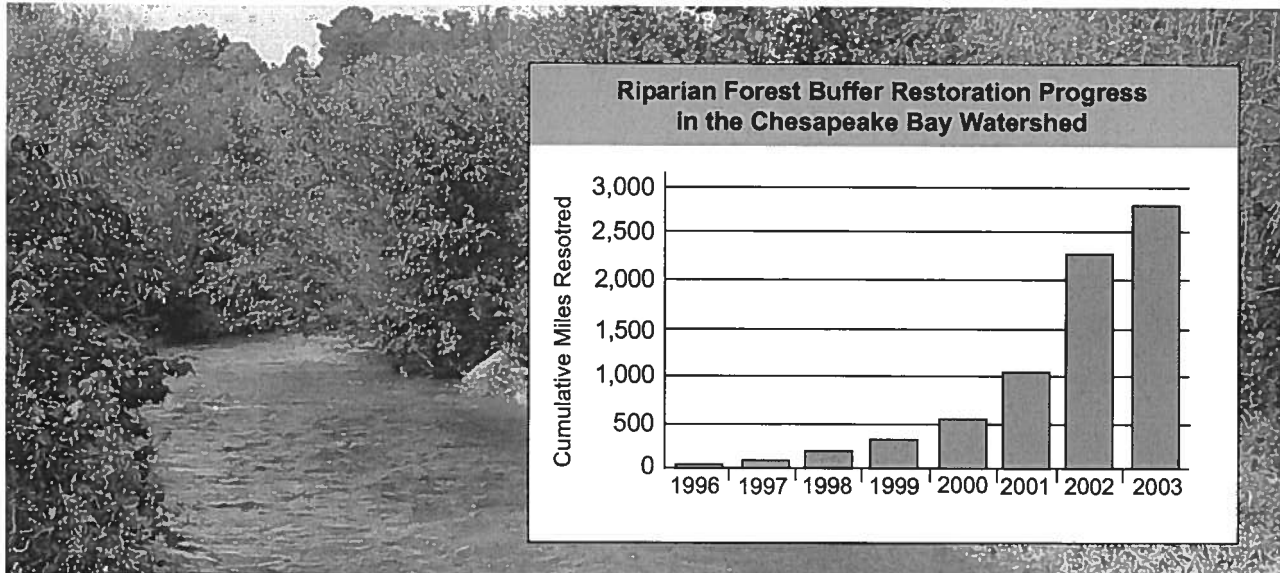


Photo: LandStudies, Inc.

In addition to these goals, the Directive adopts the following policy recommendations:

- Ensure that adequate technical assistance is available to landowners and communities.
- Continue the Conservation Reserve Enhancement Program (CREP), a federal-state partnership that provides financial incentives for restoring forest buffers on agricultural land.
- Promote innovative restoration techniques, wider buffers, maintenance of planted buffers, and buffer restoration on a range of land uses.
- Strategically target high priority areas for buffer restoration.
- Expand scientific knowledge on the benefits of urban tree canopy.

### Counting the Miles

Every buffer planting—large or small—will help to restore 10,000 buffer miles in the Chesapeake watershed by 2010. Any group, organization, or local government that conducts a buffer planting should report their work towards this collective goal by using a simple, on-line form to describe the location of the buffer, size of the planting, and contact information.

[www.chesapeakebay.net/riparian.htm](http://www.chesapeakebay.net/riparian.htm)

## Increased Conservation & Maintenance

**T**O PROMOTE THE MATURITY and quality of forest buffers, the 2003 Directive brings new emphasis to conservation and long-term maintenance.

The rate of loss of riparian forests is currently unknown. However, the long-term vision of buffering 70 percent of all streams and shorelines with forests represents a commitment to a net gain and points to a need for stronger protection. Conserving existing mature buffers is one sensible strategy towards achieving this goal.

Maintenance of restored buffers is also critical, especially for those that are newly planted. Newly

planted buffers require at least seven years before they begin to provide the same level of benefits expected from a naturally existing forest. In order to grow and thrive, trees must survive threats from drought, deer, voles, beavers, insect pests, invasive plants, lawn mowers, and people.

Maintenance needs are site specific and may include thinning, mowing, and weeding. Maintenance also requires efforts to prevent surface runoff from forming channels in the buffer area. This ensures that water remains diffused across the buffer, so that the forest can absorb and filter it effectively.



# Accelerating Progress

THE SUITE OF GOALS outlined in the 2003 Directive presents exceptional challenges to states, federal agencies, and partners of all kinds.

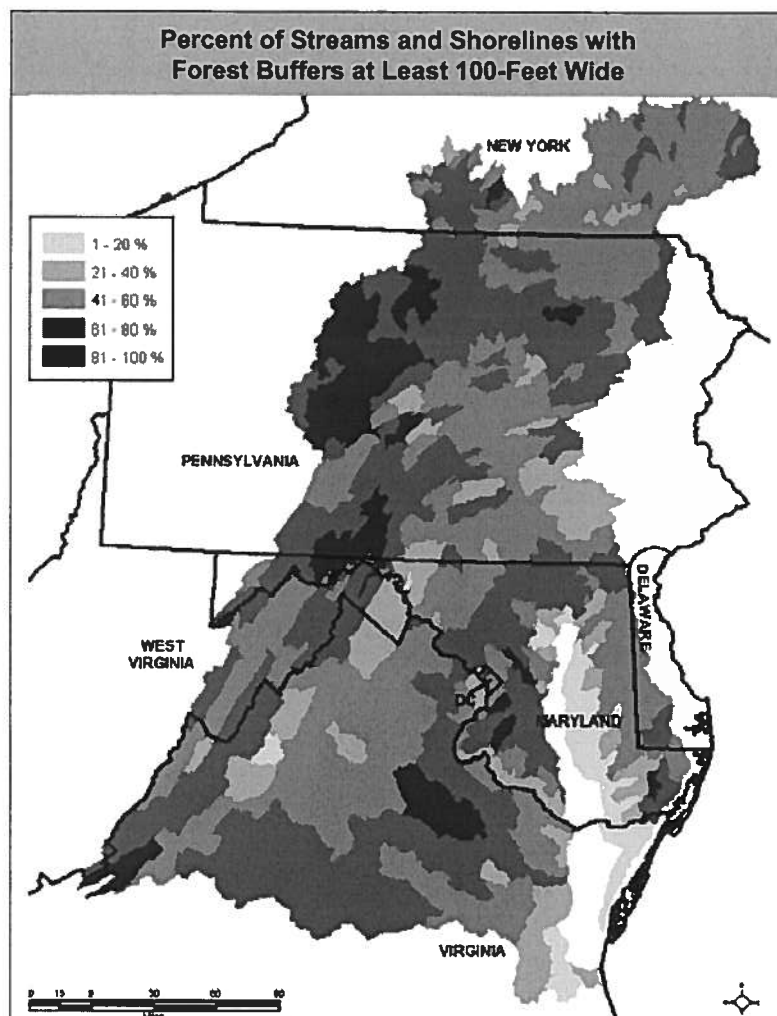
One of the foremost challenges is to sustain the aggressive rate of recent tree plantings. Financial incentives through the Conservation Reserve Enhancement Program (CREP) have been an effective means for driving buffer restoration to date. However, with an estimated \$87 to \$100 million spent through CREP since 1996, increasing the rate of riparian forest buffer restoration will require strong fiscal commitments by state and federal leaders.

The new emphasis on conserving existing forest buffers poses challenges that will require multiple solutions. Many initiatives are already underway, including conservation easements, purchase of development rights, and watershed land use planning. Losses to development, however, continue to subtract from overall progress. Commitments from local governments will be essential in addressing this situation because local ordinances are often the deciding factor in protecting riparian forests during development or requiring mitigation for their removal.

Other actions that will support the advancement of these goals include the following:

- **Helping landowners and communities.** The greatest barrier to voluntary restoration of riparian forest buffers on private lands is the ability to provide effective outreach and technical guidance to farmers and local groups willing to plant and maintain riparian forests. This service is most often provided by state and federal agencies. Having an adequate number of field foresters and biologists available for assisting landowners in buffer restoration is crucial.

- **Optimizing and targeting financial incentive programs.** A wide variety of incentive programs are available, but many of these do not always effectively



The map above shows the percentage of streambanks and shorelines that have riparian forest buffers with a width of 100 feet or more. Much work remains to buffer 70-percent of all riparian areas in the entire Bay watershed.

target riparian forest buffers. While programs that serve agricultural landowners must continue and increase, other new and existing programs must be tailored to areas such as urban/suburban and shoreline settings. Voluntary programs should be designed to favor effective practices like forest buffers and directed to landscapes where they will be most effective.

- **Reducing the cost of plantings.** The cost to ensure the survival of planted forests on agricultural and urban sites can be high. Costs could be reduced, and survival increased, by identifying techniques that support and enhance natural forest regeneration. Additional field studies are needed to experiment with a variety of planting and maintenance strategies.

## A New Focus on Trees in Urban Areas

**M**ORE THAN 100 ACRES OF FOREST are lost each day to urban development, further compromising streams and watersheds under stress. Studies show that a number of cities have lost more than 15 to 30 percent of their urban forest canopy in the last twenty years alone—increasing stormwater treatment costs and ozone pollution, and diminishing the beauty and livability of our cities. The 2003 Directive ensures that trees in urban areas will receive unprecedented attention from Chesapeake Bay Program partners.

In urban settings, riparian forest buffers are often removed or constricted by development, and riparian functions are compromised by stormwater runoff. Even when buffers are established, the intensity and diversion of stormwater runoff make it much harder to achieve the levels of benefits possible in more rural areas.

Nevertheless, trees remain vital to urban ecology. In urban and suburban areas, ample urban forests can improve a stream's water quality and condition while reinforcing buffer functions. Urban trees help reduce stormwater runoff and encourage infiltration—intercepting falling rain, absorbing and storing water, reducing runoff, protecting soil from erosion, filtering pollutants, and improving air quality. In addition, urban forests help make population centers more desirable, supporting smart growth objectives.



Photo: Edward Gilman, University of Florida

Trees in urban areas, such as these in Pennsylvania, beautify a community and provide environmental benefits.

## Promoting Tree Canopy

“Tree canopy” is the area that, when viewed from above, is occupied by the leaves and branches of trees. Tree canopy serves as an indicator of the health and extent of an urban forest and the benefits it provides.

The Chesapeake Bay Program has committed to increasing the amount of tree canopy in urban and suburban areas by working with at least five local communities in each state to set and achieve tree canopy goals for their areas. This new partnership with communities will:

- Assess tree canopy
- Adopt local goals for tree canopy
- Take steps to increase tree canopy coverage



Photo: Roderick Salguero, US Forest Service

### Urban Forests...

- ☒ Protect water quality
- ☒ Reduce air temperature
- ☒ Improve air quality
- ☒ Provide wildlife habitat
- ☒ Reduce noise pollution
- ☒ Beautify the landscape
- ☒ Offer a connection with natural resources

## Looking Forward

THE CHESAPEAKE BAY PROGRAM has mobilized around the riparian forest buffer restoration effort with extraordinary success. The progress to date is heartening, but many challenges remain. Participants in the Chesapeake Bay Program are committed to using their achievements, partnerships, and evolving knowledge as a foundation for continued success. The 2003 *Expanded Riparian Forest Buffer Goals* (Directive No. 03-01) sets forth a number of aggressive goals and policy recommendations. Riparian forests are also featured prominently in the Tributary Strategies outlined for many of the region's rivers. In fact, the Tributary Strategies indicate that still greater restoration efforts may be needed to avoid federal regulatory actions to protect water quality. Together, these documents reinforce the critical role of the riparian forest buffer initiative and call for the continuation and advancement of this important regional effort.

The partnerships that will achieve these goals are many. Along with the leadership of Maryland, Pennsylvania, Virginia, the District of Columbia, and federal agencies, continued contributions from citizens and nonprofit organizations are critical. Many groups—such as schools, environmental organizations, sports fishing organizations, outdoor education centers, civic groups, and others—will help to achieve the expanded goal of 10,000 buffer miles by 2010.

New and broader partnerships will also play an important role, especially those between public and private organizations. In addition, policy changes must



Photo: Heather Richards, Potomac Conservancy

be explored to further protect and restore the region's riparian forests.

Of course, as efforts are directed at creating new riparian forests, the challenge of conserving and maintaining existing ones remains critical as well. Only the combined efforts of both conservation and restoration will achieve the long-term goal of buffering 70 percent of all streams and shorelines within the entire Bay watershed.

Each step towards this goal—whether large or small, or the product of public or private efforts—represents progress. In combination, these efforts will bring the multiple benefits of riparian forests to bear on countless streams, rivers, and ultimately, the Chesapeake Bay.





**For additional information,  
please contact:**

The Chesapeake Bay Program  
410 Severn Avenue, Suite 109  
Annapolis, Maryland 21403

(410) 267-5700

1-800-YOUR-BAY

[www.chesapeakebay.net](http://www.chesapeakebay.net)





**Chesapeake Bay Program**

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410 Severn Avenue, Suite 109  
Annapolis, Maryland 21403

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1-800-YOUR-BAY

A-139

Here are the questions that the Planning Commission asked last night:

1. Why is underground storm water management proposed when the County is trying to avoid that? Where is underground storm water management proposed? We don't understand this question.

2. The Board's approval of the pump and haul included a condition that the property connect to public sewer when it becomes available within 300' of the property. The condition does not specify the west side of Belmont Ridge Road. (What is the status of the letter of clarification?) The presentation made by staff twice says on "west side" of 659, first in the summary at the bottom of page 5, then again in item #8 on page 9. Could you explain the letter of clarification? Who is it from? Who is it to?

3. The Phase 4 plan shows 600 seats in the sanctuary. Is it 500 or 600? 600.

4. Why is the church resistant to reforesting the .8 acres of bare areas within the 300' reservoir buffer when they are impacting forest areas to expand? Because reforesting clear areas will ruin a field we use for informal recreation by covering a third of it. We plan to plant many trees that the County is not requiring. This requirement would also add stress to our already stressed budget.

5. Will the church agree to a condition to dedicate the right of way for the multi-purpose trail and sidewalk called for in the Bike/Ped Plan, and construct it when there is something to connect to? We were told that the bike/pedestrian path will be on the Fairfax City land. No one has informed us any differently, nor have we seen any plans, so there is no way for us to know anything that this might require. More than that, with the limited funds at our disposal, we cannot commit to some as yet not seen project. No on both counts.

6. Is the proposed intensity of the expansion compatible with surrounding existing uses? A minimum of 75% of our property will remain green as specified on the SPEX plat, page 8.

7. Will the applicant commit to architectural details? (Can you email me a pdf file of the elevations for the additions and sanctuary to show the commission during the public hearing?) The design incorporates thematic similarities with the existing sanctuary—foundation stone, siding and door and window shapes. **Further comments from Bill Robson if necessary.**

8. What is the height of the buildings and the height of the steeple? Since the sanctuary remains a decade in the future, it (and a possible steeple) has not yet been designed. All facilities are one story and will conform to County ordinances. **Further comments from Bill Robson if necessary.**

9. Does the applicant agree to the fire and rescue contribution noted in the staff report conditions? We agree to pay the fire and rescue contribution. We request that the payment for the future Sanctuary and for the Classroom #3 on the north parcel be deferred until such time as we submit building permits for those buildings, since they lie some distance in the future.

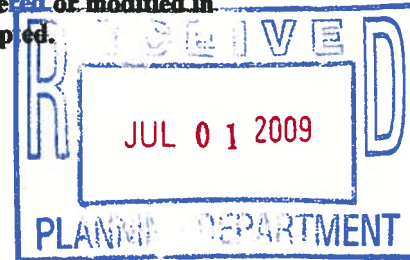
#### Staff

1. Review the proposal in light of the recently passed Heritage Preservation Plan. Could you let us know what the Heritage Preservation Plan is and how it might affect us? Thanks!

2. What is the difference between a right of way reservation and dedication?

Important! The adopted Affidavit and Reaffirmation of Affidavit forms shall not be altered or modified in any way. Any form that is altered or modified in any way will not be accepted.

**REAFFIRMATION OF AFFIDAVIT**



In reference to the Affidavit dated JULY 1, 2009  
(enter date of affidavit)

For the Application Mt. Hope Baptist Church, with Number(s) \_\_\_\_\_  
[enter Application name(s)] [enter Application number(s)]

I, Paul H. Feeney, do hereby state that I am an

(check one) X Applicant (must be listed in Paragraph C of the above-described affidavit)  
\_\_\_\_\_ Applicant's Authorized Agent (must be listed in Paragraph C of the above-described affidavit)

And that to the best of my knowledge and belief, the following information is true:

(check one) X I have reviewed the above-described affidavit, and the information contained therein is true and complete as of JULY 1, 2009, or;  
(today's date)

\_\_\_\_\_ I have reviewed the above-described affidavit, and I am submitting a new affidavit which includes changes, deletions or supplemental information to those paragraphs of the above-described affidavit indicated below:

(Check if applicable)

- \_\_\_\_\_ Paragraph C-1
- \_\_\_\_\_ Paragraph C-2
- \_\_\_\_\_ Paragraph C-3
- \_\_\_\_\_ Paragraph C-4(a)
- \_\_\_\_\_ Paragraph C-4(b)
- \_\_\_\_\_ Paragraph C-4(c)

WITNESS the following signature:

Paul H. Feeney, Chairman

check one: [ X ] Applicant or [ ] Applicant's Authorized Agent

Paul H. Feeney, Trustee/Chairman/Director

(Type or print first name, middle initial and last name and title of signee)

Subscribed and sworn before me this 1 day of July, 20 09, in the State/Commonwealth of Virginia, in the County/City of Loudoun.

Rikki Klingman  
Notary Public

My Commission Expires: 08-31-2012

Notary Registration Number: 334903



I, Paul H. Feeney, do hereby state that I am an

☒ Applicant

☐ Applicant's Authorized Agent listed in Section C.1. below

in Application Number(s): \_\_\_\_\_

and that to the best of my knowledge and belief, the following information is true:

**C. DISCLOSURES: REAL PARTIES IN INTEREST AND LAND USE PROCEEDINGS**

**1. REAL PARTIES IN INTEREST**

The following constitutes a listing of the names and addresses of all **APPLICANTS, TITLE OWNERS, CONTRACT PURCHASERS** and **LESSEES** of the land described in the application\* and if any of the forgoing is a **TRUSTEE\*\*** each **BENEFICIARY** of such trust, and all **ATTORNEYS**, and **REAL ESTATE BROKERS**, and all AGENTS of any of the foregoing.

All relationships to the persons or entities listed above in **BOLD** print must be disclosed. Multiple relationships may be listed together (ex. Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner, etc.) For a multiple parcel application, list the Parcel Identification Number (PIN) of the parcel(s) for each owner(s).

<b>PIN</b>	<b>NAME (First, M.I., Last)</b>	<b>ADDRESS (Street, City, State, Zip Code)</b>	<b>RELATIONSHIP (Listed in bold above)</b>
156-25-8201	Mt. Hope Baptist Church	42507 Mt. Hope Rd., Ashburn, VA 20148	Title Owner
156-15-9668	Mt. Hope Baptist Church	42507 Mt. Hope Rd., Ashburn, VA 20148	Title Owner
	Simms Showers LLP	305 Harrison St., SE 3 <sup>rd</sup> Fl., Leesburg 20175	Attorneys
	Christopher Consultants	20110 Ashbrook Pl., Ashburn, VA 20147	Agent
	Robson Group Architects	14900 Bogle Dr., # 203, Chantilly, VA 20151	Agent

\* In the case of a condominium, the title owner, contract purchaser, or lessee of 10% or more of the units in the condominium.

\*\* In the case of a TRUSTEE, list Name of Trustee, name of Trust, if applicable, and name of each beneficiary.

Check if applicable:

☐ There are additional Real Parties in Interest. See Attachment to Paragraph C-1.



**2. CORPORATION INFORMATION** (see also Instructions, Paragraph B.3 above)

The following constitutes a listing of the **SHAREHOLDERS** of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 100 or fewer shareholders, a listing of all of the shareholders, **and if such corporation is an owner of the subject land**, all **OFFICERS** and **DIRECTORS** of such corporation. (Include sole proprietorships, limited liability companies and real estate investment trusts).

**Name and Address of Corporation:** (complete name, street address, city, state, zip code)

Mt. Hope Baptist Church 42507 Mt. Hope Road, Ashburn, VA 20148

**Description of Corporation:**

X *There are 100 or fewer shareholders and all shareholders are listed below.*

       *There are more than 100 shareholders, and all shareholders owning 10% or more of any class of stock issued by said corporation are listed below.*

       *There are more than 100 shareholders but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.*

       *There are more than 500 shareholders and stock is traded on a national or local stock exchange.*

**Names of Shareholders:**

<b>SHAREHOLDER NAME</b> <i>(First, M.I., Last)</i>	<b>SHAREHOLDER NAME</b> <i>(First, M.I., Last)</i>
Henry Creel	
Paul Feeney	
Roger Rusk	
Stanley Wortman	

**Names of Officers and Directors:**

<b>NAME</b> <i>(First, M.I., Last)</i>	<b>Title</b> <i>(e.g. President, Treasurer)</i>
Paul Feeney	Chairman/Director
John Zoller	Vice Chairman/Director
Mark Jagoe	Director
Stanley Wortman	Director

Check if applicable:

X *There is additional Corporation Information. See Attachment to Paragraph C-2.*

## 2. CORPORATION INFORMATION (see also Instructions, Paragraph B.3 above)

The following constitutes a listing of the **SHAREHOLDERS** of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 100 or fewer shareholders, a listing of all of the shareholders, **and if such corporation is an owner of the subject land**, all **OFFICERS** and **DIRECTORS** of such corporation. (Include sole proprietorships, limited liability companies and real estate investment trusts).

**Name and Address of Corporation:** (complete name, street address, city, state, zip code)

Robson Group Architects, 14900 Bogle Drive, Ste.203, Chantilly, VA 20151

### Description of Corporation:

☒ *There are 100 or fewer shareholders and all shareholders are listed below.*

☐ *There are more than 100 shareholders, and all shareholders owning 10% or more of any class of stock issued by said corporation are listed below.*

☐ *There are more than 100 shareholders but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.*

☐ *There are more than 500 shareholders and stock is traded on a national or local stock exchange.*

### Names of Shareholders:

<b>SHAREHOLDER NAME</b> <b>(First, M.I., Last)</b>	<b>SHAREHOLDER NAME</b> <b>(First, M.I., Last)</b>
William Robson	

### Names of Officers and Directors:

<b>NAME</b> <b>(First, M.I., Last)</b>	<b>Title</b> <b>(e.g. President, Treasurer)</b>
William Robson	President

Check if applicable:

☒ *There is additional Corporation Information. See Attachment to Paragraph C-2.*

## 2. CORPORATION INFORMATION (see also Instructions, Paragraph B.3 above)

The following constitutes a listing of the **SHAREHOLDERS** of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 100 or fewer shareholders, a listing of all of the shareholders, and if such corporation is an owner of the subject land, all **OFFICERS** and **DIRECTORS** of such corporation. (Include sole proprietorships, limited liability companies and real estate investment trusts).

**Name and Address of Corporation:** (complete name, street address, city, state, zip code)

Christopher Consultants, 20110 Ashbrook Place, Ashburn, VA 20147

### Description of Corporation:

X *There are 100 or fewer shareholders and all shareholders are listed below.*

       *There are more than 100 shareholders, and all shareholders owning 10% or more of any class of stock issued by said corporation are listed below.*

       *There are more than 100 shareholders but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.*

       *There are more than 500 shareholders and stock is traded on a national or local stock exchange.*

### Names of Shareholders:

<b>SHAREHOLDER NAME</b> <i>(First, M.I., Last)</i>	<b>SHAREHOLDER NAME</b> <i>(First, M.I., Last)</i>
Christopher W. Brown	
William R. Goldsmith, Jr.	
Louis Canonico	
William R. Zink	

### Names of Officers and Directors:

<b>NAME</b> <i>(First, M.I., Last)</i>	<b>Title</b> <i>(e.g. President, Treasurer)</i>
Christopher W. Brown	President
William R. Goldsmith, Jr.	Exec. Vice President/Secretary
Louis Canonico	Vice President
William R. Zink	Vice President
Ruth R. Fields	Treasurer

Check if applicable:

       There is additional Corporation Information. See Attachment to Paragraph C-2.

### 3. PARTNERSHIP INFORMATION

The following constitutes a listing of all of the **PARTNERS**, both **GENERAL** and **LIMITED**, in any partnership disclosed in the affidavit.

**Partnership name and address:** (complete name, street address, city, state, zip)

Simms Showers, LLP, 305 Harrison St., SE, 3<sup>rd</sup> Fl., Leesburg, VA 20175

  X   (check if applicable) The above-listed partnership has no limited partners.

**Names and titles of the Partners:**

<b>NAME</b> <b>(First, M.I., Last)</b>	<b>Title</b> <b>(e.g. General Partner, Limited Partner, etc)</b>
Harold R. Showers	Managing Principal
Stephen S. Simms	General Partner
Charles Bailey	Non-Equity Partner

Check if applicable:

       Additional Partnership information attached. See Attachment to Paragraph C-3.

#### 4. ADDITIONAL INFORMATION

- a. One of the following options **must** be checked:

☐ In addition to the names listed in paragraphs C. 1, 2, and 3 above, the following is a listing of any and all other individuals who own in the aggregate (directly as a shareholder, partner, or beneficiary of a trust) 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE of the land:

☒ Other than the names listed in C. 1, 2 and 3 above, no individual owns in the aggregate (directly as a shareholder, partner, or beneficiary of a trust) 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE of the land:

Check if applicable:

☐ Additional information attached. *See Attachment to Paragraph C-4(a).*

- b. That no member of the Loudoun County Board of Supervisors, Planning Commission, Board of Zoning Appeals or any member of his or her immediate household owns or has any financial interest in the subject land either individually, by ownership of stock in a corporation owning such land, or though an interest in a partnership owning such land, or as beneficiary of a trust owning such land.

**EXCEPT AS FOLLOWS: (If none, so state). NONE**

Check if applicable:

☐ Additional information attached. *See Attachment to Paragraph C-4(b).*

- c. That within the twelve-month period prior to the public hearing for this application, no member of the Loudoun County Board of Supervisors, Board of Zoning Appeals, or Planning Commission or any member of his immediate household, either individually, or by way of partnership in which any of them is a partner, employee, agent or attorney, or through a partner of any of them, or through a corporation (as defined in the Instructions at Paragraph B.3) in which any of them is an officer, director, employee, agent or attorney or holds 10% or more of the outstanding bonds or shares of stock of a particular class, has or has had any business or financial relationship (other than any ordinary customer or depositor relationship with a retail establishment, public utility, or bank), including receipt of any gift or donation having a value of \$100 or more, singularly or in the aggregate, with or from any of those persons or entities listed above.

**EXCEPT AS FOLLOWS: (If none, so state). NONE**

Check if applicable:

☐ Additional information attached. *See Attachment to Paragraph C-4(c).*



**D. COMPLETENESS**

That the information contained in this affidavit is complete, that all partnerships, corporations (as defined in Instructions, Paragraph B.3), and trusts owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, OR LESSEE of the land have been listed and broken down, and that prior to each hearing on this matter, I will reexamine this affidavit and provide any changed or supplemental information, including any gifts or business or financial relationships of the type described in Section C above, that arise or occur on or after the date of this Application.

WITNESS the following signature:

  
\_\_\_\_\_

check one: ☒ Applicant or ☐ Applicant's Authorized Agent

Paul H. Feeney, CHAIRMAN

(Type or print first name, middle initial and last name and title of signer)

Subscribed and sworn before me this 1 day of July, 2009, in  
the State/Commonwealth of Virginia, in the County/City of Loudoun.

Rikki Vonne formerly Rikki Clingman  
Notary Public

My Commission Expires: 08.31.2012

Notary Registration Number: 334903



**AFFIDAVIT  
REQUIRED FOR ZMAP, ZCPA, ZMOD & SPEX APPLICATIONS,  
APPEALS AND VARIANCES  
UNDER THE 1972 LOUDOUN COUNTY ZONING ORDINANCE**

REGARDING NOTIFICATION REQUIREMENTS FOR **SPEX 2007-0036** located on Loudoun Tax Map 78, Parcels 13 & Parcel 12B. PIN #s 156-15-9668 and 156-25-8201.

STATE OF VIRGINIA  
COUNTY OF LOUDOUN, to wit:

I, Paul H. Feeney, the undersigned, being first duly sworn, do hereby depose and certify as follows:

That in accordance with Section 1207 of the Loudoun County zoning Ordinance and Virginia Code Section 15.1-431, the abutting property owners listed on the attached sheet were notified of the July 16, 2009, public hearing before the Planning Commission, to be held at the Supervisors' Meeting Room, County Government Center, 1 Harrison Street, S.E., Leesburg, Virginia, at 6:00 pm.

That a sample notification letter and list of the names of abutting land owners and occupants is attached.

That said notification was mailed from the Ashburn Post Office, on June 30, 2009 by certified mail.

That pursuant to Section 1207 et. Seq. of the Loudoun County Ordinance, signs furnished by the County, indicating the date, time and place of the public hearing before the Loudoun County Planning Commission were placed within 10 feet of the boundary line of the subject real property abutting each of the public roads along the boundaries of the above-identified property, and that said signs, when erected, were clearly visible from the said roads with the bottom of the signs being not less than two and one-half feet above the ground.

That this posting was accomplished on June 24, 2009.

That pursuant to Section 1207.3 of the Loudoun County Zoning Ordinance, said signs were maintained up to the time of the public hearing.

  
Applicant's Signature

Subscribed and sworn to before me this 1 day of July, 2009.

My Commission Expires:

08.31.2012

  
Notary Public



A-149

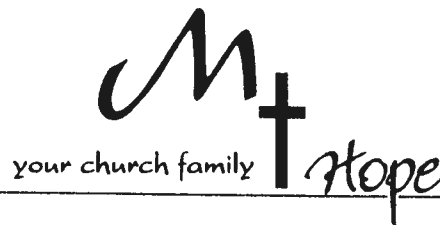
# **LISTS OF PROPERTY OWNERS ABUTTING MOUNT HOPE PROPERTY**

**Mrs. Marsha Stumpo  
Director of Operations & Finances  
Angler Development, Inc.  
170 West Shirley Avenue  
Suite 201  
Warrenton, Virginia 20186**

**Jennifer Rosa  
Management Representative  
Villages of Waxpool, Home Owners Assn.  
44081 Pipeline Plaza  
Suite 100  
Ashburn, Virginia 20147**

**Mr. Robert L. Sisson  
City Manager  
Fairfax City  
10455 Armstrong Street  
Fairfax, Virginia 22030**

John Zoller  
Senior Pastor



703-779-4784 phone  
703-779-0025 fax

June 30, 2009

Jennifer Rosa  
Management Representative  
Villages of Waxpool, Home Owners Assn.  
44081 Pipeline Plaza  
Suite 100  
Ashburn, Virginia 20147

Dear Ms. Rosa

I write to inform all our neighbors that our church has applied to Loudoun County for a Special Exception that will allow us to expand our facilities to meet current and future needs.

Please be advised that the meeting scheduled for June 18<sup>th</sup>, 2009 was postponed, and a hearing on this matter has been rescheduled for July 16<sup>th</sup> at 6:00 pm in the Loudoun County Board of Supervisors boardroom. If you have any questions concerning our plans I can be reached at 703-779-4784.

Warmest regards,

John Zoller, Pastor  
Mt. Hope Baptist Church